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The accompanying extract giving a short sketch of the history of the lac industry, taken from the Report of the Maritime Trade of Bengal for 1907-08, is published for general information.

By Order,
K. S. CHANDRASEKHARA AIYAR,
Secy. to Govt. Gen & Rev. Depts.

"In view of the increasing importance of the lac industry and the expansion in the last few years of the export trade which is practically a monopoly of Calcutta, a short sketch of the history of the industry may be of interest.

Origin of Lac:—Lac is a resinous incrustation produced by [illegible]mall scale insect upon the twigs of certain trees, and is found in many parts of the Indian [illegible]tinent. The lac originates as an excretion which accumulates round and encloses the insec[illegible] beath a shell-like covering. As the insects live and feed closely packed together, the [illegible]n coalesces and results in the formation of a continuous incrustation on the twigs. [illegible] days before the swarming of the young larvæ, which takes place twice in the y[illegible]e, the twigs are broken off and collected, and from the article of commerce know[illegible]c". To provide for future crops a portion of the "Stick" is set aside, and b[illegible]in grass, and subsequently bound on to fresh branches of unaffected trees [illegible] for propogation.

Manufacture of Shellac, Button lac and G[illegible]: [illegible]k-lac is sent to the factories where it is converted into Shellac. It is[illegible]s note to describe the process of manufacture at length, but it is briefly [illegible]-lac is crushed in mills, and the substance obtained is softened and sepa[illegible]ses consisting of (i) fragments of twigs which are used as fuel; (ii) fine d[illegible]icles of lac and dirt, technically called *Khud*; this is sold to the makers [illegible]s; (iii) granular lac, known by the trade name of Seed-lac.

The Seed-lac is soaked in water f[illegible]urs, the lac cells are broken up and the Seed-lac is reduced to a smalle[illegible]on. During this process the water becomes of a deep purple claret [illegible]bstance known as lac-dye. After being washed, the Seed-lac is [illegible]ht and air, whereby it [illegible] with orpiment (yellow arsenic) or with resin, or with both pale straw colour; it is used in th[illegible] and imparts to it a grades in which paleness is not re[illegible] point and use in certain quantities is a nece[illegible]ed to adulterate Shellac unduly. Two to five per cent [illegible]. American buyers have complained that the adultera[illegible]rly twenty-five per cent.

The S[illegible]-lac, mixed with the [illegible]arrow cloth bags which are held over open [illegible]d [illegible]eezed out of the bags [illegible] the floor, and [illegible]he [illegible]s qualities of Shell[illegible]assified [illegible]ording [illegible] to the trade as "Fine Orange [illegible].C." "[illegible] [illegible]f Seed-lac of a pale colour are made [illegible] dark-red sheets known as Garnet[illegible] [illegible] the melting bags two qualities of [illegible]y used in the pro[illegible] of sea[illegible]

Up-country [illegible]ch the same process as the Natu[illegible] facto[illegible] dity and magnitude of production.

[illegible] comp[illegible]

Stick-lac	*Seed-lac.*
Resin 68 per cent	Resin 88·5.
Colouring extract 10	Colouring extract 2·5.
Wax 6 per cent	Wax 4.
Gluten 5·5 per cent	Gluten 2.
Extraneous substances 6	
Loss 4 per cent	

History of Lac.—The ind[illegible]inor industries of India and is said to have an antiqui[illegible]ivation and collection lac was, and is still, almost en[illegible]ue [illegible]races dwelling in the poo[illegible]er parts of the country, and the [illegible]agation a[illegible]onnection have remained u[illegible]changed for centuries. These metho[illegible]ed the Indian demand for the article, and un[illegible] recent years the demand of the export trade also. In fact until comparatively recently th[illegible] was little foreign demand for lac-resin, as its properties were not fully appreciated. At t[illegible] beginning of the 19th century the exports of lac-dye were five or six times more valua[illegible] than those of the resin. Between 1868 and 1900 the value of the exports of lac-dye fell fr[illegible]

Rs. 4,45,612 to nil, while that of the Shellac exported rose from Rs. 18,41,491 to Rs. 92,65,60[illegible]. Lac-dye is now a waste product, and it is hoped in future to avoid in whole or in part the troublesome necessity of extracting it by postponing the season of collecting the Stick-lac until after the swarming of the young lac larvæ, to whose presence in the lac cells much of the colouring matter is due. Lac dye has been robbed of its commercial value by the introduction of synthetic dyes.

Sources of supply.—The lac insect is widely distributed throughout the continent of India and Burma, and exists upon some 87 varieties of trees, of which the most important are (*i*) *Schleichera trijuga*, (*ii*) *Butea frondosa*, (*iii*) *Ficus Bengalensis*, (*iv*) *Ficus religiosa*, (*v*) *Ficus Rumphii*, (*vi*) *Cajanus indicus*, (*vii*) *Zizyphus Jujuba*. Numbers (i) and (ii) yield the finest lac and European factories make use solely of their products, which are known as *Nagali* and *Baisakhi* (*or Katki*) respectively. The industry is especially flourishing in the Central Provinces, and in the Native State of Rewa and Nagod in Central India; while in parts of Bengal and in Upper Burma it has attained considerable dimensions. It is carried on upon a small scale in Bombay, the Punjab, the United Provinces and parts of Madras and Mysore. In Rewa a revenue of over 5 [illegible] was obtained by the State from the industry in 1905-06.

Uses of Lac.—In India [illegible] enters very largely into the agricultural, commercial, artistic, manufacturing and domestic [illegible] of the people. In the village it is used either as a varnish or a colour medium [illegible] production of tables, bed posts, chairs, boxes, platters, etc. Silver and copper-smiths, [illegible] and carriage manufacturers employ it in their trades. It is used in the painted pot[illegible] Bengal, Lucknow and Oudh generally, and in the Punjab, and by jewellers a[illegible] throughout India. It is extensively used by book-binders and makers of [illegible] for colouring toys and fans; while marbles, pens, sealing-wax, ink-bottle[illegible] fruits are made out of it. Its use in the form of a spirit varnish i[illegible] manufacturers of certain classes of articles such as carriages and [illegible] it is imported from Europe, India not yet having begun to make [illegible] the want of cheap industrial alcohol.

In Europe and America it [illegible] varnish particularly as a spirit varnish and polish for furniture and metal, a[illegible] for hats, as an ingredient in lithographic ink and as sealing wax. Th[illegible] of varnish and lacquer in the manufacture of motors, bedsteads [illegible] records and as an insulating medium in electrical appliances, has [illegible] exceeding the supply of shellac, with the result that prices have [illegible] and much of India's commercial lac is exported either in its [illegible] its manufacture.

Prospects of the [illegible] anticipate a great expansion of the industry. The [illegible] to be restricted, and it is threatened by no rival [illegible] which was announced some years Germ[illegible] There further immense scope for the development [illegible] insect has had to contend so far with many enemies, [illegible] fungi, climatic influences, forest fires and man. Uns[illegible] ming of the young larvæ from [illegible] hail are ex[illegible] ve methods of cultivation [illegible] among the [illegible] d by the great [illegible] and high prices now pr[illegible] Much of the w[illegible] due to preventable causes. [illegible] years [illegible] oted a [illegible] attention to the ind[illegible] improved me- thods of cultivatio[illegible] enjoys [illegible] of the raw article [illegible] sufficient quality [illegible] an inferior kin[illegible]

Factories.—[illegible] ries employing more than 50 pe[illegible] s employing total average nu[illegible] factories employing an average [illegible] inces).